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No. 8

The Machinery of Human Life

By Dr. A. T. Schofield
Member of the Royal College of Surgeons

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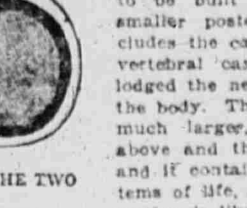

SECTION OF THE TWO TUBES.

THE TWO TUBES IN THE BODY.

MAN is a member of the vertebrata. His body has an internal skeleton, of which the chief feature is the central axis or backbone. Considering the skull and backbone as one, the body may be said to be built up of two tubes. The smaller posterior or neural tube includes the cavity of the skull and the vertebral canal. Within this tube is lodged the nervous centre or engine of the body. The anterior or body tube is much larger, consisting of the face above and the neck and trunk below, and it contains the four nutritive systems of life, so that the whole body in section is like an 8 with the lower circle immensely exaggerated. The limbs, of course, are not tubular. They are solid throughout and contain only the machinery needed for moving them and the blood needed to repair the machine. If we look again at the illustration we shall see that in the first tube there is a curved division.

The limbs, &c., are the machinery, the posterior tube the engines and force that move them, and the anterior (darkly shaded) tube the human boiler that generates the force. This boiler, like one in a steam engine, has an upper and lower part. The upper part, above the curved line, is where the steam is generated (in lungs) and sent to the engine (the brain) by the heart. The lower part, below the curved line, is where the fuel is burned (the stomach), and the ashes and refuse drop through (the intestines). So that the analogy between the two is close and striking.

Centres of Control.

There are two distinct seats of government in the human body; the one in the upper brain, or cortex, the other principally in the very centre of the human body. That in the upper brain, or cortex, is the human will and the conscious mind. It is absolutely autocratic, supreme, godlike in its qualities, and responsible only to the Creator. This imperious and imperial human will has absolute control given to it over the animal part of the human life—that is, over the part that consists in the using of force, which includes the nervous and locomotor systems and the special senses.

The other governments, situated in the lower part of the brain and spinal cord and in the centre of the body—in front of the spine and behind the stomach—is of an entirely different order. It is indeed a most complete and absolute system of "home rule." The imperial government of the brain proper has no power over any of its actions; absolute though it may be over its own domain, here it cannot interfere. This home-rule government, or "the unconscious mind," has full and undisputed sway over life itself, particularly over vegetable as distinguished from animal form—that is, over the generating and storing of vital force, rather than over its usage. Over the latter, indeed, it has some slight control, but only so far as to enable it to assist the former. To put this more plainly: The four systems that lie in the body—digestive, circulatory, respiratory and excretory—may be termed the nutritive systems, being designed for the maintenance and storage of life forces. They are almost entirely under the control of the involuntary nerve centres.

Framework of the Body.

All the complicated framework in the living man is hidden and blended so as to present but one harmonious whole. Observe that the chest is an arrangement only found among mammals, in man and in some of the highest apes, much broader than it is thick. This arrangement throws the arms much more apart than the legs, giving them a much wider range for grasping, but making them weak and useless for walking. In other animals, on the contrary, the upper part of the chest is narrow, to allow the forelegs to come close together and stand directly under the trunk they support. Notice the bony framework of the chest, which is formed by the ribs and breastbone. It will interest you to observe that if these were continued all the way down we could not stoop and could hardly move. The lower half of the body, the abdomen, is protected instead by a firm but yielding wall of strong muscles, added to which are elastic fibres. In animals who walk on all fours these fibres form a complete elastic belt to support the body. Note, moreover, that the heaving of the chest and beating of the heart are all conducted within the thorax, or chest, so that the three great organs necessary to existence—the brain inside the skull, the lungs and the heart beneath the ribs—are thus entirely protected from all ordinary injury.

The Bones of the Body.

If we divide the body into six parts—four limbs, trunk and head and neck—we find each part contains about thirty bones (counting the ribs in pairs), there being about two hundred in all the body. The hand and wrist alone contain some twenty-seven bones. The height of the body depends mainly on the length of the bones of the lower limbs.

Let a person stand with feet together and outstretched arms. His breadth should now be equal to his height, and the four sides of a perfect square will in a perfect figure touch the soles of the feet, the crown of the head and the tips of the fingers. Of the height, the hand should measure one-tenth part, the forearm one-quarter, the head one-eighth, the face one-tenth, the leg (from kneecap to foot) one-quarter, while the greatest width of the chest should measure one-fifth, the least one-sixth; the breadth of the nostrils should equal the length of the eye; the mouth should be half as long again; the forehead should be the same breadth as the nose is long. Such a figure is a perfect human structure.

May Manton's Daily Fashions.

Child's Yoke Apron—Pattern No. 5630.

THE apron that really protects the frock is the one that is most needed for the active children. Illustrated is one that can be worn either over the dress or that can be made to take the place thereof, and which is a really attractive little garment as well as an essentially practical and useful one. As illustrated it is made of white linen with lines of blue forming a plaid, linen being a very serviceable and very satisfactory material for aprons of the sort, but it would be pretty in chambray or in gingham and in all the many lawns and dimities that are used for children's aprons. Dimity is especially dainty and pretty and is well liked, while the lawns, both plain and cross barred, are always attractive.

The quantity of material required for the medium size (8 years) is 4 yards 27 or 2⅝ yards 36 inches wide.

Pattern No. 5630 is cut in sizes for children of 4, 6, 8 and 10 years of age.

☆ The Best Fun of the Day by Evening World Humorists ☆

New York Thro' Funny Glasses

By Irvin S. Cobb.

I. S. Cobb

IT is high time that we were correcting a few misguided impressions in the provincial or out-of-town mind concerning the things that are typical of our town of Hard-Pedal-on-the-Sound. Along the far Western frontier, where news travels slowly, the opinion undoubtedly prevails in such small trading posts as Buffalo and Cleveland that the New York scenes on the new 1907 calendars are true to life and local color.

Fancy, for the stronger points, the typical grand-opera patron as a lovely lady with a dress cut as low in the bodice as the top of the skirt. She is studded all over with the best products of Maiden Lane like a diamond flush, ten high. She is sitting in a box in the golden horseshoe languidly conversing with a society gentleman about nine feet tall and of athletic yet graceful appearance. This picture is supposed to be typical of the season of song and busted song contracts.

But it isn't. The lady with the big-casino jewelry designs in her hair and the frock hollowed out as far south as the hem only goes to the opera when she has some accumulated conversation that she desires to release upon the surrounding strangers in the audience or when she feels that her spinal column needs a little fresh air. The society gentleman who drops into her opera box for a few lines of repartee in words of one syllable isn't cut on athletic lines. Generally speaking, he's built like a pair of sled runners and most of his facial expression is on the back of his neck.

The real grand-opera scene should show a socially impossible person, with long hair, sitting in a dollar seat up under the roof and sopping up the worth of his money through his pores every thirty seconds. He goes away in a trance from which he doesn't recover until it's time for him to get up next morning and begin kicking a Hester street sewing machine.

He doesn't own a dress suit.

Then there's the typical illustration of New York life in which an entrancing maiden, with a sinuous curve in her spine the same as the Subway at Spring street and about $9,000 worth of clothes on, is seen standing at Forty-second street and Broadway smiling a sweet smile into space and in imminent danger of being run down by nine automobiles and a flying squadron of cabs.

But this is another instance where they've slipped the wrong slide into the magic lantern. The real picture from New York life is a couple with a sleepy, sickly baby in their arms, riding home on a Columbus avenue car to a flat that costs them $8 a month more than they can afford. They've just been to a lecture on "The Proper Care of Children," which they could not enjoy because the kid had cramps and kept squalling. And now, after reading the signs in the top of the car, they've decided to take the money they'd saved up to buy a sewing machine and pay the first instalment down on a piano-playing attachment.

THE FUNNY PART:

They hope to be able to get the piano later on.

How'd You Like to Be the Policeman? = By T. O. McGill.

The Jarr Family's Daily Jars

By Roy L. McCardell.

"THE children need new shoes," said Mrs. Jarr.

"By George! What do they do with their shoes anyway?" asked Mr. Jarr petulantly.

"They wear them. What else do you suppose?" snapped Mrs. Jarr, who didn't like the way Mr. Jarr spoke.

"It looks to me as if they held them against grindstones," said Mr. Jarr. "Every day—well, every week, anyway, it's the same old cry, 'The children need shoes!'"

"I notice you have good, comfortable shoes on," said Mrs. Jarr, tearfully. "I'm sure the children are not hard on their shoes, and I have tried to wait till the weather was warmer and see if they couldn't get light weight shoes, but their feet are nearly on the ground and I'm afraid to wait any longer. Of course you don't care if they catch their death of cold, but I do!"

"Who said I wanted them to catch cold?" said Mr. Jarr. "But I tell you you make me sick the ideas you have. You'd think these children of ours were millionaires' children. They have their patent leather shoes, they have their russet shoes, they have their low cut shoes, they have their school shoes, and in the summer, instead of letting them go barefoot, like I went when I was a child, you put barefoot sandals, so called, on them, with socks! Socks, bah!"

"If you want them to run around in the gutters in this weather with bare feet looking like beggars—although, goodness knows, I never saw any barefoot beggars in my life—you may," said Mrs. Jarr, emphatically; "but so long as I live they are going to have decent shoes, even if they have to do without spring hats and new spring clothes like every other child on our block has."

"Why, how you talk!" exclaimed Mr. Jarr. "You got them spring hats Saturday. I saw you!"

"Those cheap things!" exclaimed Mrs. Jarr. "Why, I only got those for them to wear to school and save their Sunday hats."

"When I was a boy I had one change of shoes," said Mr. Jarr. "That was put on and taken off. When the weather was warm I went barefooted, and it made me healthy."

"Yes, and you lived in the country," said Mrs. Jarr. "Do you think I am going to have my children come home with bare feet through the grime and filth of the streets? Am I going to have them mocked by other children whose fathers do not make the half you do? Am I going to have them run the danger of getting lockjaw? How ridiculous you talk?"

"It's you that's talking ridiculous," said Mr. Jarr, heatedly. "You fly from one extreme to the other. I didn't mean that our children should go barefoot. I simply said I used to. I do object, however, to filling their heads with foolish notions. If they had one good pair of strong shoes for every day, and a better pair for Sunday and holidays, that should be enough. But look at them! They even have dancing shoes."

"I try to get them with nice associates," sobbed Mrs. Jarr, "but you would prefer to see them associating with ragamuffins, and so I send them to dancing school, and if they go to dancing school they have to have dancing shoes, don't they?"

"Well, I suppose they do!" growled Mr. Jarr. "But I'll tell you there's hard times coming, and if we don't save a little money now we never will. What would they do if I lost my position, eh?"

"You won't lose your position by buying decent shoes for your poor little children!" said Mrs. Jarr. "If you do not do anything more to shame them than they do to shame you, you'll be all right. If you behave yourself and attend to your business and stop going with the kind of men you go with you wouldn't be in any danger of losing your position!"

"I'm not in any danger of losing my position!" snarled Mr. Jarr, "and don't you forget it! But I do kick about foolish extravagance. I suppose you want to go down town and buy them three-dollar shoes. When I was a boy the best shoes I had cost only a dollar and a half a pair!"

"You can't get them for that price now," said Mrs. Jarr. "And I've found that those cheap shoes don't last. It pays to get the best."

"Well, I'll tend to that!" snapped Mr. Jarr. "I'm going to take them downtown and buy them some strong, sensible shoes that will last them, and I won't pay a big price for them either!"

"Go ahead!" said Mrs. Jarr, bursting into tears. "You are an unfeeling wretch, and you have no consideration for my feelings, and I don't care what you do!"

Mr. Jarr was back in an hour with the two children. It was hard to say who was the proudest—the children wearing French black patent leather shoes with white leather tops and pearl buttons, or Mr. Jarr beholding them in them.

"There!" he said proudly. "Those cost six dollars a pair, but I tell you my children are going to have the best!"

IF Mr. Kyrle Bellew did not look like an April fool last night, he at least must have felt like one in "A Marriage for Reason," which had no reason being at Wallack's, or anywhere else, for that matter.

Some ten or fifteen years ago simple folk with homegrown intellects read stories like the one unfolded last night and thought them quite lovely. When they stopped for meals they put all-silk markers in the place where they had left off and brought on indigestion by worrying over the true lovers who, strangely enough, went right along, chapter after chapter, without eating a mouthful. They were too busy, poor things! feeding the soul.

The attempt to feed last night's audience with a spoon wasn't altogether successful. The house found it somewhat difficult to swallow the play and keep its face straight at the same time. There are some things, you know, that even Broadway can't swallow. It had tried once or twice before to swallow Mr. J. Hartley Manners in both play and actor form, but, as Mrs. Langtry knows, it never quite succeeded in getting him down. This time Mr. Manners names Mrs. Arthur Kennard as an accomplice. It seems Mrs. Kennard trotted out "The Second Lady Delcombe" in book form and that Mr. Manners saw her coming. But he did not hide behind a hedge. He came out bravely last night and confessed to the "construction, characterization and entire dialogue."

Laura Jean Libbey should not let professional jealousy keep her from seeing "A Marriage of Reason." It is almost as good as "Parted on the B. & O." And Miss Libbey would undoubtedly recognize in Mr. Bellew her ideal hero. The fact that Mr. Bellew appears in this play proves that he's a hero. It also proves that he is hard up for a play. But he makes the most of a small matter, and as Lord Delcombe permits himself to be loved by three women without putting on any more airs than usual.

There was so much love lying around loose that Mr. Bellew was obliged to walk very carefully to keep from stepping in it and tracking it all over Delcombe Abbey. When the awfully noble nobleman took a Chicago girl for what she was worth and she took him for his title he left behind a divorced wife and some unhappy memories. But he kept his little boy, and the second wife and the youngster became great chums. Not so the second Lady Delcombe and His Lordship. They were as strangers. This fact was painfully brought out during a game of hide-and-seek between little Tony and his stepmother. Rita (that was her Chicago name) dodged into the hollowed trunk of the old apple tree to find her husband in name only there. In a rash moment he tried to kiss her. Perhaps he did kiss her, for she came out into the open with an angry "How dare you!" At another sentimental moment she was awfully insulted because he took her hand. But he was ever kind and gentle. He showed how to be a gentleman though married. He talked of going to Africa, but he never once suggested that she run away and play with her title and give him a rest. When he discovered that his nephew loved Rita he talked to him like an uncle, and asked him to have a drink. Yes, he did speak sharply to the young man once, but more in sorrow than in anger.

Matters went along like this till the little boy fell off his pony and out of the cast. Then the divorced wife came to the Abbey to see her son, kissed Wife No. 2 and had a very pleasant visit. Miss Julia Dean made the character fairly sympathetic and acted like Miss Charlotte Walker in distress. The wife of a grouchy captain also arrived at the Abbey late at night in search of any sympathy that might be going to waste, and when her husband followed her the thoughtful Delcombe made it appear that she had come to see his wife and sit up with the sick boy. Rita came in with the note he had dashed off, and when she dropped it in a graceful back-fall faint and the captain reached for it Lord Delcombe stopped him with "That letter's mine!"

No one seemed to be thinking about the boy, who was playing up to a "crisis" in the next room. They were all busy with their mixed love affairs. We echoed Rita's sentiments when she said she longed to be "back home again in Chicago." She was willing to go, but she wanted her husband in name only to stay. That cheered him up a bit, and he spoke of the "crisis" and more definite information from Rita quite gayly. While the boy wrestled with the "crisis" off stage Lord Delcombe took his wife in his arms for the first time, and love took the place of reason.

Mr. Bellew's well-bred manners and English gave the character of Delcombe its only interest, but the actor was almost as artificial as the part. Miss Fannie Ward, as the second wife, was as cold and unsympathetic as an icicle. She looked pretty enough to catch an English lord, but her acting offered sufficient grounds for having "A Marriage of Reason" annulled. Master Richard Storey played Tony intelligently, but, like most stage youngsters, he was somewhat self-conscious. Mr. Conway Tearle also seemed rather keen on himself as a loveless nephew and Mr. Frederic de Belleville rather sorry for himself as trouble-hunting captain. It would be interesting to know just how Mr. F. felt.

CHARLES DARNTON.

Brewster's Millions, | *A New York Monte Cristo* | By George B. McCutcheon

SYNOPSIS OF PRECEDING CHAPTERS.

Montgomery Brewster, a young New York bank clerk, inherits $1,000,000 from his grandfather. As he is about to settle down to the enjoyment of his legacy he is notified that his uncle in Montana has just died, leaving him $7,000,000. But by the terms of the uncle's will Brewster must within one year spend the $1,000,000 left him by his grandfather and become penniless, before he can inherit the $7,000,000. Swearengen Jones, of Montana, his uncle's executor, notifies him that this money must be spent rationally. Brewster at once begins his task of squandering a million dollars in a single year. His friends despise him as a mere spendthrift. He is forbidden by the terms of the will to explain his reasons for squandering the millions. Extravagant entertainments, capped by a far more wildly lavish yacht cruise, wipe out practically all of his fortune within the allotted time. He has meantime fallen in love with Peggy Gray, a companion of his childhood; and his love is reciprocated. Peggy's mother is a gentlewoman in reduced circumstances with whom Brewster formerly boarded. Brewster and Peggy became engaged, with the outward prospect of beginning married life without a dollar.

CHAPTER XXVI.
How the Million Disappeared.

SOON after noon on the 22d of September Monty folded his report to Swearengen Jones, stuck it into his pocket and sallied forth. A parcel delivery wagon had carried off a mysterious bundle a few minutes before. Mrs. Gray could not conceal her wonder. Brewster's answers to her questions threw little light on the mystery. He could not tell her the big bundle contained the receipts that were to prove his sincerity when the time came to settle with Mr. Jones. Brewster had used his own form of receipt for every purchase. The little stub receipt books had been made to order for him, and not only he, but every person in his employ, carried one everywhere.

No matter how trivial the purchase, the person who received a dollar of Brewster's money signed a receipt for the amount. Newsboys and bootblacks were the only beings who escaped the formality; tips to waiters, porters, cabbies, &c., were recorded and afterward put into a class by themselves.

He kissed Peggy good-by, told her to [illegible] then went off to find Joe Bragdon and Elon Gardner.

"You can't afford it, Monty," exploded Joe, fearlessly. "Peggy is too good a girl. By gad! it isn't fair to her."

"We have agreed to begin life to-morrow. Wait and see the result. I think it will surprise you. Incidentally it is up to me to get the license to-day and to engage a minister's services. It's going to be quiet, you know. Joe, you can be my best man if you like, and, Gardie, I'll expect you to sign your name as one of the witnesses. To-morrow evening we'll have supper at Mrs. Gray's and among those present will not comprise a very large list, I assure you. But we'll talk about that later on. Just now I want to ask you fellows to lend me enough money to get the license and pay the preacher. I'll return it to-morrow afternoon."

"Well, I'm blessed!" exclaimed Gardner, utterly dumfounded by the nerve of the man. But they went with him to get the license and Bragdon paid for it. Gardner promised to have the minister at the Gray house the next morning. Monty's other request—made in deep seriousness—was that Peggy was not to be told of the little transaction in which the license and the minister figured so prominently. He then hurried off to the office of Grant & Ripley. The bundles of receipts had preceded him.

"Has Jones arrived in town?" was the first anxious question after the greetings.

"He is not registered at any of the hotels," responded Mr. Grant, and Brewster did not see the troubled look that passed over his face.

"A tall, bearded stranger was here this morning asking for you, Mr. Brewster," said Ripley, his head bent over some papers on his desk.

"Did he look like a constable or a bill collector?" asked Monty, with a laugh.

"He looked very much like a tramp."

"Well, we'll forget him for the time being," said Monty, drawing the report from his pocket. "Would you mind looking over this report, gentlemen? I'd like to know if it is in proper form to present to Mr. Jones."

Grant's hand trembled as he took the carefully folded sheet from Brewster. A quick glance of despair passed between the two lawyers.

"Of course, you'll understand that this report is merely a synopsis of the expenditures. They are classified, however, and the receipts over there are arranged in such a way that Mr. Jones can very easily verify all the figures set out in the report. For instance, the total amount that went up in smoke. The receipts are to serve as an itemized statement, you know." Mr. Ripley took the paper from his partner's hand and, pulling himself together, read the report aloud. It was as follows:

New York, Sept. 23, 19—

To Swearengen Jones, Esq.,
Executor under the will of the late James T. Sedgwick of Montana:

In pursuance of the terms of the aforesaid will and in accord with the instructions set forth by yourself as executor, I present my report of receipts and disbursements for the year in my life ending at midnight on Sept. 22. The accuracy of the figures set forth in this general statement may be established by referring to the receipts, which form a part of this report. There is not one penny of Edwin Peter Brewster's money in my possession, and I have no asset to mark its burial place. These figures are submitted for your most careful consideration.

Original capital	$1,000,000.00
"Lumber and Fuel" misfortune	58,550.00
Prizefight misjudged	1,000.00
Monte Carlo education	40,000.00
Racetrack errors	700.00
Sale of six terrier pups	150.00
Sale of furniture and personal effects	40,500.00
Interest on funds once in hand	19,140.00
Total amount to be disposed of	$1,160,040.00

DISBURSEMENTS.

Rent for apartments	$23,000.00
Furnishing apartments	88,372.00
Three automobiles	21,000.00
Renting six automobiles	25,000.00
Amount lost to DeMille	1,000.00
Salaries	25,650.00
Amount paid to men injured in auto accident	12,240.00
Amount lost in bank failure	113,468.25
Amount lost on races	4,000.00
One glass screen	3,000.00
Christmas presents	7,211.00
Postage	1,105.00
Cable and telegraph	[illegible]
Stationery	2,112.00
Two Boston terriers	[illegible]
Amount lost to "hold-up man"	450.00
Amount lost on concert tour	56,000.00
Amount lost through O. Harrison's speculation (on my account)	60,000.00
One ball (in two sections)	60,000.00
Extra favors	[illegible]
One yacht cruise	212,000.00
One carnival	[illegible]
Cigars	1,120.00
Drinks, chiefly for others	[illegible]
Clothing	3,400.00
Rent of one villa	22,000.00
One courier	500.00
Dinner parties	117,000.00
Suppers and luncheons	58,000.00
Theatre parties and suppers	6,277.00
Hotel expenses	61,218.59
Railway and steamship fares	31,274.61
[illegible]	[illegible]
Two opera performances	20,000.00
Repairs to Flitter	6,342.60
Tow from somewhere to Southampton	60,000.00
Special train to Florida	1,000.00
Cottage in Florida	5,500.00
Medical attendance	3,100.00
Living expenses in Florida	5,900.00
Misappropriation of personal property by servants	5,580.00
Taxes on personal property	112.25
Sundries	9,105.00
Household expenses	24,805.00
Total	$1,160,040.00

RECAPITULATION.

Total amount to be disposed of	$1,160,040.00
Total disbursements	$1,160,040.00
Balance on hand	$0,000,000.00

Respectfully submitted,
MONTGOMERY BREWSTER.

"It's rather broad, you see, gentlemen, but there are receipts for every dollar, barring some trifling incidentals. He may think I dissipated the fortune, but I defy him or any one else to prove that I have not had my money's worth. To tell you the truth, it has seemed like a hundred million. If any one should tell you that it is an easy matter to waste a million dollars, refer him to me. Last fall I weighed 180 pounds, yesterday I barely moved the beam at 140; last fall there was not a wrinkle in my face, nor did I have a white hair. You see the result of overwork, gentlemen. It will take an age to get back to where I was physically, but I think I can do it with the vacation that begins to-morrow. Incidentally, I'm going to be married to-morrow morning, just when I am poorer than I ever expect to be again. I still have a few dollars to spend and I must be about it. To-morrow I will account for what I spend this evening. It is now covered by the 'sundries' item, but I'll have the receipts to show, all right. See you to-morrow morning."

He was gone, eager to be with Peggy, afraid to discuss his report with the lawyers. Grant and Ripley shook their heads and sat silent for a long time after his departure.

"We ought to hear something definite before night," said Grant, but there was anxiety in his voice.

"I wonder," mused Ripley, as if to himself, "how he will take it if the worst should happen."

(To Be Continued.)

"The Lion and the Mouse," a splendid, up-to-date New York novel, adapted from the famous play of the same name, will begin serial publication in next Saturday's Evening World.